

IN THE CLAIMS:

Cancel claims 1 - 5.  
Amend claims 6 and 7.  
Add new claims 8 - 17.

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)

6. (Currently amended) An apparatus for influencing the travel properties of a material ~~according to claim 1 wherein~~ moving between a material supply source and a delivery location, the apparatus comprising:

means forming a feed path along which material travels as the material is enroute from the material supply source to the delivery location, the feed path passing through an upstream passage bounded by an upstream passage periphery formed of a closed loop of points each of which is at a predetermined radial spacing from a reference axis and the feed path including one branch having a branch entry downstream of the upstream passage and another branch having a branch entry downstream of the upstream passage, the stream of material traveling through the upstream passage thereafter separating into at least two portions with one portion of the material entering the one branch through its branch entry and thereafter traveling along the one branch and another portion of the material entering the another branch through its branch entry and thereafter traveling along the another branch in a manner in which the another portion of the material and the one portion of the material are segregated from one another during their respective travel along the one branch and the another branch; and

03

means for moving at least one of the upstream passage periphery and the one branch entry relative to the reference axis such that the one portion of the material and the another portion of the material, prior to their respective segregated travel along the one branch and the another branch, are comprised in unseparated manner in the stream of material as it travels through the upstream passage and the portions of the material thereafter travel in segregated manner in their respective branches with the travel properties of the one portion of the material in the one branch being different than its travel properties before the movement of the at least one of the upstream passage periphery and the one branch entry relative to the reference axis, the means for relatively moving includes means for axially moving the upstream passage periphery relatively toward and away from the two branch entries.

7. (Currently amended) An apparatus for influencing the travel properties of a material according to claim 5 moving between a material supply source and a delivery location, the apparatus comprising:

means forming a feed path along which material travels as the material is enroute from the material supply source to the delivery location, the feed path passing through an upstream passage bounded by an upstream passage periphery formed of a closed loop of points each of which is at a predetermined radial spacing from a reference axis and the feed path including one branch having a branch entry downstream of the upstream passage and another branch having a branch entry downstream of the upstream passage, the stream of material traveling through the upstream passage thereafter separating into at least two portions with one portion of the material entering the one branch through its branch entry and thereafter traveling along the one branch and another portion of the material entering the another branch through its branch entry and thereafter traveling along the another branch in a manner in which the another portion of the material and the one portion of the material are segregated from one another during their respective travel along the one branch and the another branch;

03

means for moving at least one of the upstream passage periphery and the one branch entry relative to the reference axis such that the one portion of the material and the another portion of the material, prior to their respective segregated travel along the one branch and the another branch, are comprised in unseparated manner in the stream of material as it travels through the upstream passage and the portions of the material thereafter travel in segregated manner in their respective branches with the travel properties of the one portion of the material in the one branch being different than its travel properties before the movement of the at least one of the upstream passage periphery and the one branch entry relative to the reference axis wherein the subsequent superimposed cross sectional area of the one branch entry which is delimited by the superimposition of the upstream passage periphery on the one branch entry is at a different radial position than the initial superimposed cross sectional area of the one branch entry; and

further comprising means for sensing a predetermined mass flow rate in the one branch and means operatively coupled to the predetermined mass flow rate sensing means and means for axially moving the upstream passage periphery for controlling the axial movement of the upstream passage periphery in response to the sensing of the predetermined mass flow rate by the predetermined mass flow rate sensing means.

04

8. (New) An apparatus for influencing the travel property of a material moving between a material supply source and a delivery location, the apparatus comprising:

means forming a feed path along which material travels as the material is enroute from the material supply source to the delivery location, the feed path including

- a.) an upstream passage bounded by an upstream passage periphery formed of a closed loop of points each of which is at a predetermined radial spacing from a reference axis,

94

b.) one branch having a branch entry downstream of the upstream passage, and

c.) another branch having a branch entry downstream of the upstream passage, the single stream of material traveling along the feed path passing through the upstream passage and thereafter separating into at least two portions with one portion of the material entering the one branch through its branch entry and thereafter traveling along the one branch and another portion of the material entering the another branch through its branch entry and thereafter traveling along the another branch in a manner in which the another portion of the material and the one portion of the material are segregated from one another during their respective travel along the one branch and the another branch, whereby the one portion of the material and the another portion of the material, prior to their respective segregated travel along the one branch and the another branch, are comprised in unseparated manner in the single stream of material as the single stream of material travels through the upstream passage and the one portion and the another portion of the material thereafter travel in segregated manner from one another in the respective one branch and the another branch as the one portion and the another portion of the material travel downstream of the upstream passage; and

means for changing a travel property of the one portion of the material in the one branch during continuous separation of the entirety of material in the single stream of material as it travels beyond the upstream passage into, respectively, the one portion and the another portion of material, the travel property changing means being operable to move at least one of the upstream passage periphery and the one branch entry relative to the reference axis such that the travel property of the one portion of the material in the one branch after such movement relative to the reference axis is different than the same travel property of the one portion of the material in the one branch before such movement relative to the reference axis.

9. (New) An apparatus for influencing the travel property of a material according to claim 8 wherein a superimposition of the upstream passage periphery on the one branch entry effected by axially translating the upstream passage periphery along the reference axis onto the one branch entry delimits a predetermined cross sectional superimposed area of the one branch entry and the means for changing a travel property of the one portion of the material in the one branch is operable to change the radial position of the upstream passage periphery relative to the reference axis to effect a change in the superimposed cross sectional area of the one branch entry delimited by the superimposition of the upstream passage periphery on the one branch entry from an initial upstream position during an initial material feed period to a subsequent upstream position during a subsequent material feed period following the initial material feed period, whereby the superimposition of the upstream passage periphery on the one branch entry delimits, during the initial material feed period, an initial superimposed cross sectional area of the one branch entry and delimits, during the subsequent material feed period, a subsequent superimposed cross sectional area of the one branch entry which differs from the initial cross sectional area.

10. (New) An apparatus for influencing the travel property of a material according to claim 9 wherein the means for changing a travel property of the one portion of the material in the one branch is operable to effect the superimposition of the upstream passage periphery on the one branch entry such that the subsequent superimposed cross sectional area of the one branch entry which is delimited by the superimposition of the upstream passage periphery on the one branch entry is smaller than the initial superimposed cross sectional area of the one branch entry.

11. (New) An apparatus for influencing the travel property of a material according to claim 9 wherein the means for changing a travel property of the one portion of the material in the one branch is operable to effect the superimposition of the upstream passage periphery on the one branch entry such that the subsequent superimposed cross sectional area of the one branch entry which is delimited by the superimposition

of the upstream passage periphery on the one branch entry is larger than the initial superimposed cross sectional area of the one branch entry.

94 12. (New) An apparatus for influencing the travel property of a material according to claim 9 wherein the means for changing a travel property of the one portion of the material in the one branch is operable to effect the superimposition of the upstream passage periphery on the one branch entry such that the subsequent superimposed cross sectional area of the one branch entry which is delimited by the superimposition of the upstream passage periphery on the one branch entry is at a different radial position than the initial superimposed cross sectional area of the one branch entry.

13. (New) An apparatus for influencing the travel property of a material according to claim 8 wherein the means for changing a travel property of the one portion of the material in the one branch is operable to axially move the upstream passage periphery relatively toward and away from the two branch entries.

14. (New) An apparatus for influencing the travel property of a material according to claim 12 and further comprising means for sensing a predetermined mass flow rate in the one branch and means operatively coupled to the predetermined mass flow rate sensing means and means for axially moving the upstream passage periphery for controlling the axial movement of the upstream passage periphery in response to the sensing of the predetermined mass flow rate by the predetermined mass flow rate sensing means.

15. (New) An apparatus for influencing the travel property of a material according to claim 9 wherein the means for changing a travel property of the one portion of the material in the one branch is operable to change the volume of the one portion of the material traveling in the one branch entry.

94

16. (New) An apparatus for influencing the travel property of a material according to claim 8 wherein the means forming a feed path includes a vector assist component for guiding material, the vector assist component having a longitudinal extent and being configured in a sinuous shape in which the vector assist component curves along its longitudinal extent from a portion thereof more closely adjacent to the upstream passage at which the vector assist component is in one portion of the upstream passage radially offset to the reference axis on one radial extent of a diametrical line passing through the reference axis to another portion thereof more remote from the upstream passage at which the vector assist component is in another portion of the upstream passage radially offset to the reference axis on the opposite radial extent of the diametrical line passing through the reference axis.

17. (New) An assembly for delivering pulverized solid fuel to a combustion vessel for combustion of the pulverized solid fuel thereat in a combustion process; comprising:

at least a pair of burners for injecting pulverized solid fuel into the combustion vessel;

an exhauster for effecting delivery of a single stream of pulverized solid fuel from a pulverizer to the pair of burners such that the pulverized solid fuel supplied from the pulverizer is apportioned between the pair of burners whereupon a respective portion of the pulverized solid fuel is injected through one of the burners at the same time that another respective portion of the pulverized solid fuel is injected through the other one of the pair of burners; and

an apparatus for influencing a travel property of the pulverized solid fuel moving between the one pulverizer and the pair of burners so as to thereby change the apportionment of the pulverized solid fuel injected by through the pair of burners, the apparatus including:

94

(i) means forming a feed path intermediate the exhauster and the pair of burners along which the pulverized solid fuel travels as the pulverized solid fuel is enroute from the pulverizer to the pair of burners, the feed path including

- a.) an upstream passage bounded by an upstream passage periphery formed of a closed loop of points each of which is at a predetermined radial spacing from a reference axis,
- b.) one branch having a branch entry downstream of the upstream passage and communicated with the one burner, and
- c.) another branch having a branch entry downstream of the upstream passage and communicated with the other burner, the single stream of the pulverized solid fuel passing through the upstream passage and thereafter separating into two portions with one portion of the pulverized solid fuel entering the one branch through its branch entry and thereafter traveling along the one branch and another portion of the pulverized solid fuel entering the another branch through its branch entry and thereafter traveling along the another branch in a manner in which the another portion of the pulverized solid fuel and the one portion of the pulverized solid fuel are segregated from one another during their respective travel along the one branch and the another branch, whereby the one portion of the pulverized solid fuel and the another portion of the pulverized solid fuel, prior to their respective segregated travel along the one branch and the another branch, are comprised in unseparated manner in the single stream of pulverized solid fuel as the single stream of pulverized solid fuel travels through the upstream passage and the one portion and the another portion of the pulverized solid fuel thereafter travel in segregated manner from one another in the respective one branch and



the another branch as the one portion and the another portion of the pulverized solid fuel travel downstream of the upstream passage, and

04  
(ii) means for moving at least one of the upstream passage periphery and the one branch entry relative to the reference axis such that the one portion of the pulverized solid fuel in the one branch after such movement relative to the reference axis is different than the one portion of the pulverized solid fuel in the one branch before such movement relative to the reference axis, whereby the apportionment of the single stream of the pulverized solid fuel as it travels beyond the upstream passage into, respectively, the one portion and the another portion of pulverized solid fuel is changed.